

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014186**Date Inspected:** 03-May-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. Li Jia**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder( OBG)**Summary of Items Observed:**

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

BAY-6.

This QA Inspector Randomly observed the following work in progress:

Shielded Metal Arc Welding (SMAW) on West Jacking Frame (WJF) weld joint WJF-0-223. Welder is identified as 215083. ZPMC Quality Control (QC) is identified as Mr. Zhao jian Hang. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-3313-TC-P5.

SMAW on WJF weld joint WJF-0-208. Welder is identified as 057795. ZPMC Quality Control (QC) is identified as Mr. Zhao jian Hang. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-3313-TC-P5.

Flux Cored Arc Welding (FCAW) on U-Rib connection Splice plate weld joint USPL1-210-001. Welder is identified as 217185. ZPMC Quality Control (QC) is identified as Mr. Shu Jian Gou. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2231-TC-U4b-F.

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FCAW on U-Rib connection Splice plate weld joint USPL1-212-001. Welder is identified as 204342. ZPMC Quality Control (QC) is identified as Mr. Shu Jian Gou. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2231-TC-U4b-F.

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 005652.

### Magnetic Particle Testing (MT)

This QA Inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated MT report for this date. The members are identified as Tower Angle connection plate weld Components. The weld designations are review as follows:

1. SA460-1~8. (Quantity-1).
2. SA464-1~8. (Quantity-3).

### Visual Testing (VT)

This QA Inspector performed VT of the area previously tested and accepted by ZPMC QC Personnel. The member is identified as Tower Angle connection plate weld Components. The weld designations are review as follows:

1. SA460-1~8(Quantity-2).
2. SA467-1~8(Quantity-1).
3. SA470-1~8(Quantity-2).
4. SA488-1~8(Quantity-1).
5. SA501-1~8(Quantity-2).
6. SA468-1~8(Quantity-2).
7. SA471-1~8(Quantity-2).
8. SA492-1~8(Quantity-4).
9. SA464-1~8(Quantity-3).
10. SA500-1~8(Quantity-1).
11. SA472-1~8(Quantity-2).
12. SA486-1~8(Quantity-1).
13. SA469-1~8(Quantity-2).
14. SA466-1~8(Quantity-1).

Signed off following Green Tags

- 1.5831R1.
- 2.5832R1.

BAY-7.

SMAW Tack welding on Deck panel weld joint DP3095-001-013. Welder is identified as 049771. ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-4112-4.

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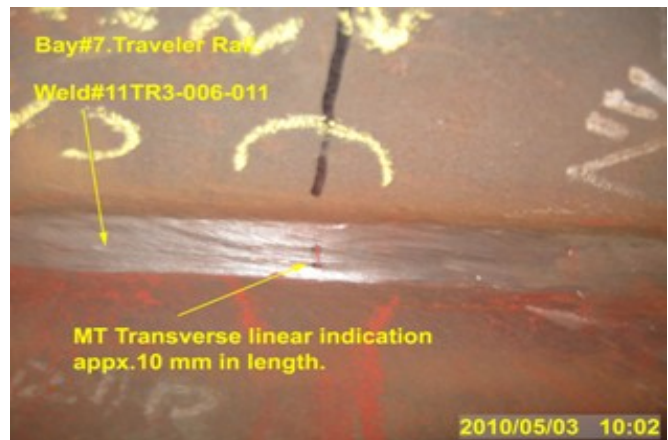
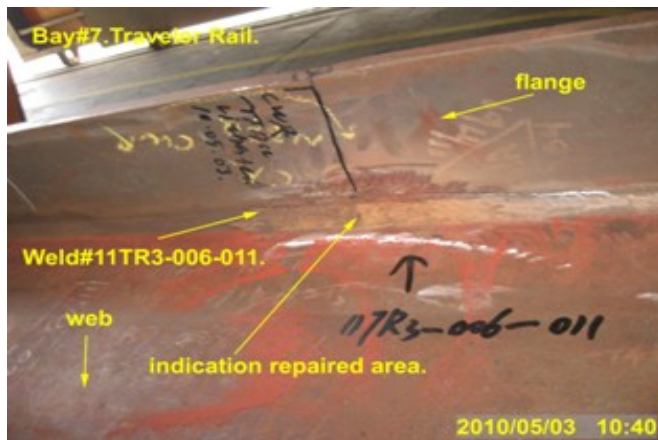
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FCAW Buttering welding on Traveler Rail 22TR3-003. Welder is identified as 053742. ZPMC Quality Control (QC) is identified as Mr. Wang jian. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-FCAW-1G(1F)Repair-1. The buttering was been performed the Critical Welding Repair Report (CWR) No:B-CWR 1374.

FCAW Buttering welding on Traveler Rail 22TR4-004. Welder is identified as 048625. ZPMC Quality Control (QC) is identified as Mr. Wang jian. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-FCAW-1G (1F) Repair-1. The buttering was been performed the Critical Welding Repair Report (CWR) No:B-CWR 1374.

This QA Inspector observed ZPMC personnel performing weld repair at transverse crack discovered area on Traveler Rail (TR) 11TR3-006-011. This crack area was being repaired without prior approval of the Engineer. This QA informed to ZPMC Quality Control (QC) identified as Mr. Li Jia and American Bridge/Fluor (AB/F) QA Inspector identified as Mr. Chang of the above issue and that an incident report would be generated. Refer attached photos for reference.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



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### Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Prabhu,Surendra	Quality Assurance Inspector
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<b>Reviewed By:</b>	Hall,Steven	QA Reviewer
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